REMARKS

Support for the amendment to claim 1 is found in claim 1 as originally filed. The amended claim uses the phrase "consisting of" as in the original claim. However, in claim 24 as amended applicant has retained the "comprising" language.

Claim 24 has been amended to incorporate the base claim from which it previously depended, thereby making claim 24 an independent claim.

Claims 1-26 were rejected under §112, first paragraph, with respect to the "comprising" for the reasons stated in the office action. While the applicant does not agree with the examiner's position that use of the phrase "comprising" in claim 1 introduces new matter, claim 1 has been amended to recite "consisting of" to reduce issues on appeal. With respect to claim 24, the examiner's allegation that the use of "comprising" language constitutes new matter is incorrect. The delimiting nature of the phrase "consisting of" is applied only to the claims – "consisting of" is a term of art that serves to measure the scope of the claims, not the specification. In the specification this phrase takes its ordinary meaning. The undersigned is unaware of any case law or MPEP section that would support the examiner's allegation. Indeed, MPEP 2111.03 states that the definitions for "comprising," "consisting essentially of," and "consisting of," *are terms of art used in claim language.* There is no mention of these phrases having a limiting effect in the specification. In short, the examiner's allegation lacks merit. Accordingly, applicant respectfully requests that the examiner withdraw the rejection that "comprising" adds new matter. If the examiner maintains this rejection, the examiner is respectfully requested to cite case law or MPEP sections that support the examiner's allegation.

Claims 1-26 were rejected under §112, first paragraph, with respect to the "abrasion-resistant coatings" for the reasons stated in the final action.

The examiner is incorrect in stating that *any* abrasion-resistant coating will improve the abrasion resistance of the final product. Thus, impact resistance enhancing layers having low

glass transition temperature (Tg) and/or made of thermoplastic materials or with low cross-linking will usually lower the abrasion resistance of the final product.

Also, the function of the abrasion-resistant coating of the invention is clearly defined since it must be a coating which enhances the abrasion resistance of the initial article. Please note that the abrasion resistance test is disclosed in the specification at page 15, lines 3 to 30. Consequently, the skilled person in the art has more than adequate disclosure and information needed to select an abrasion-resistant coating once the base substrate has been chosen.

Furthermore, enclosed are several documents (US and EP patents) which show that abrasion-resistant coatings are well known in the art. In particular, the following references are enclosed for the convenience of the examiner: US Patents 3,968,309; 3,986,997; 4,199,421; 4,211,823; 4,294,950; 4,355,135; 4,500,669; and 5,049,321; EP 13 939, and EP 614 957. These references describe, for example, acrylic abrasion-resistant coatings and silicone type coatings.

Moreover, the examiner is incorrect in stating that only inorganic anti-reflective coatings are disclosed in the specification. Organic anti-reflective coatings are specifically mentioned at page 13, lines 13 to 20. Furthermore, examples 4, 5, and 6 concern such organic anti-reflecting coatings and disclose anti-reflective layers obtained from gamma-glycidoxypropyl trimethoxysilane, which contains an organic glycidoxy group which is not eliminated when preparing the layer and instead remains when the layer is cured. In addition, examples 4-6 show sol/gel processes entirely different from the vapour phase deposition used to obtain the purely inorganic layers of the other examples of the invention.

As has been previously stated in the prior response, applicant reiterates that such coatings are well known by the skilled person. We further note that a definition of abrasion-resistant coatings is given in the specification page 10, lines 14 to 16 ("...a coating which improves the abrasion resistance of a layer stack as compared to the same layer stack without the abrasion-resistant coating."), as well as other passages such as the very passages cited by the examiner, are

believed to provide adequate support for the original claim language. The amendment is proposed for purposes of compact prosecution.

In addition, claim 24 recites is epoxysilane hydrolysate abrasion-resistant coating. This specific abrasion-resistant coating is fully supported in the specification. As such, the examiner's rationale is not applicable to this claim.

Finally, please note that in the prior response claim 1 was amended to specify that the abrasion-resistant coating is a silicone based coating or an acrylic based coating.

In view of the foregoing, applicant respectfully requests that the §112, ¶1 rejection be withdrawn.

The Obviousness Rejection

The office rejected claims 1-3, 5, 6, 10, 11, 13, 15, 18, and 20-24 under §103(a) as being unpatentable over Taniguchi et al. (U.S. Patent No. 4,904,525). This rejection is traversed for the following reasons.

In the first instance, applicant disagrees with the characterization of the Taniguchi et al. reference (the "Reference") in the final action. Applicant points out that the layer which the examiner considers to have anti-reflective properties actually degrades the anti-reflective characteristics of the article on which it is deposited, as it has been expressly shown in comparative example 3 of the ROISIN declaration.

Furthermore, as stated in the prior response, the Reference discloses an anti-reflection optical article which comprises a substrate such as polystyrene, polycarbonates; a hard coating; a top film of fluorosilicone having an average Fe/Si ratio ranging from 0.02 to 10; and a second fluorine-containing organopolysiloxane-based film (1nm to 30nm thickness) having a F/Si ratio of less than 80% than that of the top film.

The second fluorosilicone film is said to be an antistatic film.

In the rejection, the office assumes that the second fluorosilicone film acts as an anti-reflective film and the fluorosilicone top film as an impact-resistant primer interlayer. However, as demonstrated in the grandparent case and as explained herein, the second fluorine-containing organopolysiloxane based film of the Reference cannot be considered as an anti-reflective layer.

The stackings shown in annex 1 were modelized by applicants using commercial software "Film Star Design" of FTG Software Associates-Princetown New Jersey. Annex 1 includes the Declaration of ROISIN and related information that were submitted previously in the grandparent case.

Calculations were made using a light beam having an incident angle of 15°.

The modelized stacking were the following:

Stacking 1: corresponds to a reference stacking comprising a substrate and a hard coat according to example 1 of Taniguchi et al. but without the anti-reflective coating.

Stacking 2: corresponds to the stacking of example 1 of Taniguchi et al. and comprises substrate / hard coat / top film (anti-reflective film).
This stacking is said to have an experimental transmission of 96.1%.

Stacking 3: comprises substrate / hard coat / top coat of fluorosilicone (anti-reflective coating) / second fluorine containing organopolysiloxane based film (antistatic coating). Three thicknesses of the antistatic film were considered, namely 1 (a), 15 (b) and 30(c) nm.

Stacking 4: comprises substrate / hard coat / second fluorine containing organopolysiloxane-based film (antistatic film). Three thicknesses of

second fluorosilicone film were considered, namely 1nm (a), 15nm (b) and 30nm (c).

Refractive index value of the second fluorosilicone film was estimated from f/Si ratio of 0.04/1.

Results:

For each stacking, mean reflexion values R_m (per face) (for the entire visible specturm 400-700nm) and mean transmission value T_m were determined assuming that the two major faces of the substrate were coated with the corresponding layers.

	1	2	3a	3b	3c	4a	4b	4c	S
R_m(%)	5.06	1.30	1.31	1.63	2.28	5.06	4.85	4.24	5.47
T_m(%)	89.87	97.40	97.38	96.74	95.43	89.87	90.30	91.52	89.06

S corresponds to an uncoated substrate.

For the skilled person, a coating which does not lower the reflexion value (per face) to at least 2.5% is not considered as an antireflective coating.

In view of the above results, it is submitted that the second fluorosilicone film (antistatic coating) cannot be considered as an antireflecting coating since all stackings 4) include only the hard coat and the second fluorosilicone film have R_m values per face (namely at least 4%) much higher than 2.5% which is the upper limit value for considering the coating as having antireflective properties. Furthermore, stacking 3 shows that the presence of the second fluorosilicone film (antistatic) deteriorates the antireflective properties of the underneath antireflective top coating.

The fact that for stacking 2 (example 1 of the reference) the calculated value of T_m (97.4%) is higher than the experimental value (96.1%) given in the Reference should not be surprising. In fact, there always exists slight variations since the actual stacking is usually not

perfect contrary to modelized stackings. Further, modelized calculations were effected using an incident angle of 15° and integrating over the full 400-700nm range. In the Reference, other conditions may have been used.

Nevertheless, the above stacking modelization gives a meaningful comparison of the properties of the different stackings.

In conclusion, the antistatic second fluorosilicone film of the Reference is not an antireflective coating. In the Reference, the antireflective properties are attributable to the first fluorosilicone top coat.

Consequently, there is no disclosure or suggestion in the Reference of an impact-resistant primer layer between a hard coat and an antireflective coating.

Furthermore, the skilled person cannot find in the Reference any motivation for introducing between a hard coat and an antireflective coating an intermediate impact-resistant primer layer.

It should be kept in mind that the data in the ROISIN Declaration is submitted to show that Taniguchi et al. does not render the particular stacking arrangement recited in the claims obvious. The stacking arrangement in Taniguchi et al. does not provide the anti-reflective properties inherent in the claimed arrangement. It is thus submitted that the Declaration provides objective evidence that the stacking arrangement of the claimed invention provides properties not taught or suggested by Taniguchi et al. Namely, Taniguchi et al. fails to teach or suggest the claimed stacking arrangement as well as the antireflective properties associated with the claimed arrangement. Furthermore, the skilled person cannot find in Taniguchi et al. any motivation for introducing an intermediate impact-resistant primer layer between a hard coat and an antireflective coating.

In view of the foregoing, the rejection under §103 should be withdrawn.

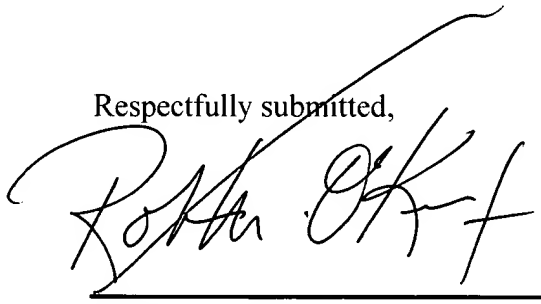
CONCLUSION

In view of the foregoing, it is submitted that the claims are in condition for allowance. Accordingly, favorable reconsideration and Notice of Allowance are courteously solicited.

No extension of time is believed to be needed in connection with the filing of this paper. However, if an extension is deemed to be needed, please consider this paper to be a request for such extension and deduct any required fee from deposit account 10-1205.

Should any fees under 37 CFR 1.16-1.21 be required for any reason relating to the enclosed materials, the Commissioner is authorized to deduct such fees from Deposit Account No. 10-1205. The examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments, or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,



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